UNDESCRIBED SPECIES OF CRANE-FLIES FROM THE HIMALAYA MOUNTAINS (TIPULIDAE, DIPTERA), III¹

By Charles P. Alexander Amherst, Massachusetts

The preceding part under this general title was published in the Journal of the New York entomological society, 65: 147-157; 1957 (publ. 1958). The materials discussed at this time were secured by Dr. Edward I. Coher and native assistants in various parts of Nepal in 1957. The conditions under which these collections were made is discussed in some detail in two earlier papers.² In these the opinion is expressed that the crane-fly fauna of east-central Nepal is quite distinct from that of the Darjeeling District some 200 miles to the east. The rich collections made by Dr. Coher in 1957 bear this out and it may be stated that the great majority of the species are distinct from those known from Darjeeling and vicinity, being more like those of western China and northeastern Burma. It is certain that an exceedingly rich crane-fly fauna exists throughout the eastern Himalayas. I wish to express my continued thanks to Dr. Coher for the time and effort devoted to collecting these flies, the types of all novelties being preserved in my collection.

Lipsothrix malla new species

General coloration of the mesonotum brown, pleura light yellow; antennae of male relatively long, about one-third the body; knobs of halteres infuscated; legs pale brown, tips of femora and tibiae narrowly darkened; wings with a weak dusky tinge, stigma pale brown; male hypopygium with the interbases very slender, slightly expanded at tips; phallosome large and complex, appearing as paired curved rods from expanded bases.

MALE. Length about 6.5-7 mm.; wing 7-7.5 mm.; antenna about 2-2.4 mm.

- ¹ Contribution No. 1293 from the Entomological Laboratory, University of Massachusetts.
- ² Alexander, C. P. Undescribed species of crane-flies from the Himalaya Mountains (Tipulidae, Diptera), I. Journ. N. Y. Ent. Soc., 64: 137-147; 1956 (published 1957).

Alexander, C. P. New or little-known Tipulidae from eastern Asia (Diptera), XLV. Philip. Journ. Sci. (in press, 1958).

Rostrum yellow to brown; palpi black. Antennae of male relatively long, about one-third the body; scape and pedicel yellow, flagellum dark brown; flagellar segments elongate, clothed with a dense white pubescence and sparse scattered slightly longer verticils that are much shorter than the segments. Head yellowed in front, darker behind; in the paratypes the head is darkened throughout.

Pronotum dark brown; pretergites yellow. Mesonotal praescutum with medium brown stripes, the restricted interspaces a little paler; scutal lobes dark brown; scutellum paler brown, parascutella yellow; mediotergite dark brown. Pleura light yellow, the pleurotergite a trifle darker. Halteres with stem whitened, knob infuscated. Legs with all coxae and trochanters pale yellow; remainder of legs pale brown, the tips of the femora and tibiae narrowly brown to black; claws with a single acute tooth. Wings with a weak dusky tinge; stigma oval, pale brown; veins brown. Venation: Sc long, Sc_1 ending opposite the fork of Rs, Sc_2 near its tip; R_2 shorter than either R_{1+2} or R_{2+3} , the latter shorter than R_{1+2} ; R_{2+3+4} slightly longer than cell 1st M_2 , the latter rectangular; m-cu at or shortly beyond the fork of M. One wing of one paratype has cell M_2 open by the atrophy of m.

Abdominal tergites brown, the outer segments, including the hypopygium, still darker, sternites more reddish brown. Male hypopygium with the dististyles terminal, the outer style slender with both the apical and subapical spines acute; inner style broadest on basal half, narrowed outwardly, tipped with unusually long setae. Interbase very slender, the apex a little expanded, pale. Phallosome large and complex, appearing as paired curved rods from expanded bases, the length slightly greater than that of the basistyle.

Holotype, &, Simbhanjang Pass, Nepal, 8197 feet, June 24, 1957 (Coher). Paratopotypes, 2 &&.

The most similar regional species include Lipsothrix burmica Alexander and L. kashmirica Alexander, readily distinguished by the structure of the male hypopygium, particularly the interbases.

Lipsothrix chettri new species

General coloration of thorax yellow, the dorsum more fulvous yellow; head reddish brown; pronotal scutum dark brown; halteres yellow; legs yellow, the tips of the femora and tibiae very narrowly and inconspicuously darkened; wings pale yellow, veins yellow; Sc_1 ending nearly opposite the fork of Rs; cell 1st M_2 very small, M_{3+4} from two-fifths to one-third as long as vein M_4 .

Female. Length about 8 mm.; wing 7.5 mm.

Rostrum reddish brown; outer segments of palpi black. Antennae with basal segments brownish yellow, outer segments dark brown; flagellar segments subcylindrical, subequal to the longest verticils. Head reddish brown.

Pronotal scutum dark brown, scutellum and pretergites pale yellow. Mesonotum fulvous yellow, with an opaque more yellowed bloom. Pleura

yellow. Halteres yellow. Legs with all coxae and trochanters light yellow; remainder of legs obscure yellow, the tips of the femora and tibiae very narrowly and inconspicuously darkened; teeth of claws small, basal in position. Wings pale yellow, unpatterned; veins yellow. Veins of outer half of wing with macrotrichia. Venation: Sc_1 ending nearly opposite the fork of Rs, Sc_2 near its tip; R_{2+3+4} gently arcuated, about one-half longer than cell 1st M_2 ; veins R_{2+3} , R_2 and R_{1+2} subequal; cell 1st M_2 small, rectangular, vein M_{3+4} about two-fifths to one-third as long as M_4 ; m-cu at or shortly beyond the fork of M.

Abdomen reddish brown, basal tergites darker brown medially above. Ovipositor with valves reddish horn color.

Holotype, Q, Simbhanjang Pass, Nepal, 8197 feet, June 24, 1957 (Coher).

The most similar regional species having the body, halteres and wings pale yellow and with the venation somewhat the same is Lipsothrix flavissima Alexander, of northeastern Burma. This differs in slight details of coloration and venation, particularly of the medial field. I have no doubt but that the discovery of the male sex will provide stronger points of distinction between the two flies.

Gonomyia (Ellipteroides) ebenomyia new species

General coloration of body and appendages black, including the antennae, halteres and legs; wings strongly blackened; cell 2nd M_2 slightly longer than its petiole, m-cu nearly one-half its length before the fork of M; ovipositor with the cerci unusually long and slender.

Female. Length about 6.5 mm.; wing 5 mm.

Rostrum dull black; palpi black. Antennae black throughout; basal flagellar segments suboval, with truncated ends, outer segments slightly more elongate; verticils exceeding the segments. Head dull black, sparsely pruinose; anterior vertex broad.

Thoracic dorsum black, surface subnitidous; posterior sclerites and pleura somewhat duller; dorsopleural membrane and meron a trifle paler. Halteres and legs black throughout, the latter conspicuously hairy. Wings with a strong blackish tinge, the long narrow stigma darker; veins brown. Vein beyond cord with strong macrotrichia, lacking on R_{2+3+4} and bases of R_3 and R_4 . Venation: Sc_1 ending about opposite midlength of Rs; R_{2+3+4} about twice the basal section of R_5 ; cell 2nd M_2 slightly longer than its petiole; m-cu from about one-third to nearly one-half its length before the fork of M.

Abdomen black. Ovipositor with the cerci only slightly hairy, long and slender, especially the outer half; in the type slide, the cerci are twisted just beyond midlength, possibly representing a normal condition.

Holotype, Q, Parewavir, Nepal, March 28, 1957 (Coher). The most similar regional species is Gonomyia (Ellipteroides)

schmidi Alexander, of the western Himalayas, differing particularly in the details of venation. The female sex of schmidi is still unknown. It may be noted that the structure and vestiture of the cerci of the present fly are quite different from the condition in various Ceylonese species of the subgenus where the female sex is known.

Gonomyia (Idiocera) coheriana new species

Mesonotum brown, the posterior sclerites darker; pleura infuscated dorsally, clear yellow below; rostrum and palpi black; basal segments of antennae light yellow, flagellum brownish black; legs yellow, the outer tarsal segments black; wings subhyaline, restrictedly patterned with darker; male hypopygium with the apical lobe of the basistyle stout, tip obtuse; four dististyles, the outer a slender rod with about five small spinules on surface; apex of aedeagus recurved.

MALE. Length about 5 mm.; wing 5.5 mm.

Rostrum and palpi black. Antennae with the scape and pedicel light yellow, flagellum brownish black; basal flagellar segments long-suboval, outer ones more elongate, a little shorter than the longest verticils. Head light yellow in front, more infuscated on posterior half and as a central darkening on the vertex.

Pronotum and pretergites light yellow. Mesonotal praescutum chiefly covered by three confluent brown stripes, the humeral and lateral regions yellow, pseudosutural foveae reddish; scutal lobes brown, scutellum and postnotum darker brown. Pleura with the dorsal half moderately infuscated, the ventral portion clear light yellow. Halteres infuscated. Legs with the fore coxae weakly infuscated, remaining coxae and trochanters yellow; remainder of legs yellow, tips of tibiae narrowly darkened, outer tarsal segments black. Wings subhyaline, base and costal region more yellowed; a restricted and inconspicuous brown pattern, including the small stigma and still smaller marks at origin of Rs, cord, m-cu and tip of vein R_{ι} ; a paler brown subterminal wash in cells R_3 and R_4 ; veins light brown, more brownish black in the patterned areas. Venation: Sc short, Sc, ending just beyond the perpendicular origin of Rs, Sc₂ retracted; distance on costa between R_{1+2} and R_3 only about one-third to one-fourth the latter; cell 2nd M_g about one-half longer than its petiole; m-cu about twice its length before the fork of M.

Abdominal tergites brown, incisures narrowly pale, sternites light yellow; hypopygium brownish yellow. Male hypopygium with the lobe of the basistyle long, stout, tip broadly obtuse. Four dististyles or profound branches; outer style a long slender gently sinuous rod or spine, extended into a long point, on surface beginning at near midlength with five or six acute spinules, the outer one smallest; second style longest, on outer two-thirds more expanded into a curved flattened blade, tip obtuse, surface glabrous; intermediate style shorter, stem pale, apex darker and more expanded, weakly and unequally bifid, margins irregularly toothed or erose;

innermost style smallest, a simple straight rod that narrows to an acute spine, before apex with about three long pale setae, with still others along the lower margin; additional to the four major dististyles a further small pale needlelike point, about one-half as long as the innermost style. Aedeagus slender, its tips gently recurved into a crook.

Holotype, & Parewavir, Nepal, March 26, 1957 (Coher).

I take great pleasure in dedicating this very interesting Idiocera to the collector, Dr. Edward I. Coher, my former student and fellow specialist in the Diptera. While generally similar to some other regional species, such as Gonomyia (Idiocera) petilis Alexander, it differs strikingly from all previously known species in the structure of the male hypopygium, particularly the outermost dististyle.

Gonomyia (Idiocera) satanas new species

General coloration of entire body, including also the mouthparts, antennae, halteres and legs, black; wings strongly tinged with blackish, stigma still darker; Sc_1 fully twice as long as m-cu; vein R_3 suberect, on costa separated from R_{1+2} by a distance about two-thirds its length; m-cu about its own length before the fork of M.

FEMALE. Length about 5.5 mm.; wing 5 mm.

Rostrum and palpi black. Antennae black throughout; flagellar segments oval. Head black.

Thorax uniformly dull black or plumbeous black, the pseudosutural foveae more intense polished black. Halteres black. Legs entirely black. Wings strongly tinged with blackish, the oval stigma still darker; veins brownish black, those in the prearcular field brown. Venation: Sc_1 ending just beyond the origin of Rs, Sc_1 alone fully twice m-cu; vein R_3 suberect, separated from R_{1+2} on costa by a distance about two-thirds its length; cell 2nd M_2 more than twice its petiole; m-cu about its own length before the fork of M.

Abdomen dull brownish black to black, including the ovipositor.

Holotype, Q, Jhawani, Nepal, March 19, 1957 (Coher).

Paratopotype, 1 \, pinned with the type.

Readily told from all other regional members of the subgenus by the black color of the body and appendages. The most similar regional species is *Gonomyia* (*Idiocera*) *phæosoma* Alexander, readily told by the coloration of the body and legs and by the venation.

Gonomyia (Gonomyia) turritella new species

Mesonotal praescutum and scutal lobes blackish gray; rostrum yellow; antennae black throughout, pedicel enlarged; legs brown; wings faintly tinged with brown, stigma ill-delimited; Sc long, cell R₃ unusually large,

cell 1st M_2 small; male hypopygium with two terminal dististyles, outer style extended into a long slender spine, inner style with a long arm that bears a single spine at apex; phallosome with the aedeagus subhyaline, tip obtuse; gonapophyses equal in size, each narrowed apically into a long slender spine.

MALE. Length about 4-4.2 mm.; wing 4.6-4.8 mm.

Female. Length about 4.5 mm.; wing 4.5 mm.

Rostrum obscure yellow; palpi brown. Antennae black; pedicel enlarged; flagellar segments elongate. Head blackish, gray pruinose.

Pronotum and pretergites light yellow. Mesonotal praescutum with three blackish gray stripes that are confluent or virtually so, lateral borders light yellow; scutal lobes blackish gray, the median region yellow; scutellum pale yellow, restrictedly darkened at base, parascutella obscure yellow; mediotergite darkened on central part and behind, the anterior angles yellowed; pleurotergite yellowed dorsally, more darkened behind. Pleura with the mesepisternum and sternopleurite weakly darkened, pteropleurites meron and metapleura light yellow; propleura and dorsopleural membrane Halteres with stem dirty white, knob infuscated. coxae brownish yellow, fore pair darker in front; trochanters brownish yellow; remainder of legs brown, the outer segments a little darker. Wings faintly tinged with brown, the prearcular and coastal regions more yellowed; stigma pale brown, ill-delimited; veins brown, paler in the brightened fields. Venation: Sc long, Sc, ending about opposite two-fifths the length of Rs, Sc_1 subequal to or shorter than r-m; cell R_2 unusually large, vein R_3 subequal to vein R_{2+3+4} , cell R_3 at margin about twice as extensive as cell R_2 ; cell 1st M_2 small; m-cu at or beyond the fork of M.

Abdominal tergites brown, sternites more yellowed; hypopygium light yellow. Male hypopygium with the basistyle relatively slender, without a distinct apical lobe. Dististyles two, terminal in position; outer style smaller, appearing as a simple blade, broadest beyond midlength, gradually narrowed into a long spine, surface except at ends with abundant microscopic setulae; inner style with the body small, the fasciculate setae poorly indicated; outer surface of style produced into a long arm that extends caudad to beyond the level of apex of the outer style, before the obtuse tip with a single powerful black spine; a single seta on stem of arm at near midlength. Phallosome including a subhyaline central structure, its tip obtuse, at near one-third the length bearing a cylindrical arm; gonapophyses two, elongate, equal in size, broadest on proximal two-thirds, the outer end narrowed into a sinuous spine, the tip acute.

Holotype, &, Parewavir, Nepal, March 26, 1957 (Coher).

Allotopotype, ♀, March 28, 1957. Paratopotypes, 3 ♂ ♀, March 26–28, 1957 (Coher).

In its somewhat distinctive venation, the present fly is most like *Gonomyia* (*Gonomyia*) resoluta Alexander, of Malaya, differing in coloration and in the details of venation. The male sex of resoluta is still unknown.

Erioptera (Erioptera) regina new species

Size large (wing of female 6.8 mm.); general coloration of mesonotum polished fulvous and yellow, pleura yellow with blackened heavily pruinose areas; halteres yellow; legs yellow, tips of femora narrowly but conspicuously black; wings weakly tinged with brown, conspicuously patterned with light yellow, including the base, costal border and a broad seam over the cord; abdominal tergites brownish yellow, conspicuously blackened laterally and on the pleural membrane; sternites brownish black.

Female. Length about 7 mm.; wing 6.8 mm.

Rostrum and palpi brown. Antennae with the scape black, remainder of organ brown; flagellar segments suboval, the outer ones more elongate, verticils exceeding the segments. Head polished black, vaguely pruinose in front.

Pronotum obscure yellow. Mesonotal praescutum and scutal lobes polished fulvous, the interspaces more brownish yellow; posterior sclerites of notum light yellow. Propleura dark brown; mesopleura polished yellow to fulvous, with brownish black areas on the anepisternum, ventral sternopleurite and metapleura, these regions heavily light gray pruinose; a blackened spot immediately before the wing root; dorsopleural membrane yellowed. Halteres short, pale yellow. Legs with coxae and trochanters yellow; remainder of legs light yellow, the tips of the femora narrowly but very conspicuously black, involving about one-fifteenth of the segment or less. Wings weakly tinged with brown, conspicuously patterned with light yellow, including the prearcular and costal regions and a broad seam over the cord; narrower and less evident yellow areas around the wing tip and along vein Cu to the margin; veins yellow. Venation: Vein 2nd A moderately sinuous, ending opposite the posterior end of the oblique and gently sinuous m-cu.

Abdominal tergites obscure orange yellow, the basal segment, lateral borders of the remaining tergites, and the dorsopleural membrane blackened; sternites brownish black, terminal segment more yellowed. Ovipositor with the cerci horn-yellow, strongly upcurved to the acute tips.

Holotype, \mathfrak{P} , Suna Chudi, Nepal, in jungle, March 23, 1957 (Coher).

The most similar regional species is the equally large *Erioptera* (*Erioptera*) rex Alexander, of northeastern Burma, which differs especially in the coloration of the body and legs. The abruptly blackened femoral tips of the present fly are particularly distinctive.

Molophilus (Molophilus) gurkha new species

Belongs to the *gracilis* group and subgroup; size medium (wing of male 5.3 mm.); general coloration of mesonotum reddish brown, postnotum and dorsal pleura darker; legs yellow, tarsi brownish black; wings grayish yellow; hypopygium yellow, basistyle with only two lobes, both fleshy; two terminal dististyles, both large and conspicuous; outer style broad on basal

half, thence strongly bent and narrowed into a long black spine, inner style slender, its outer third blackened and dilated into a head; aedeagus unusually stout.

MALE. Length about 4.5 mm.; wing 5.3 mm.

Rostrum brown; palpi dark brown. Antennae broken beyond the pedicel. Head dark brown.

Cervical region and anterior pronotum dark brown, scutellum and pretergites yellowed. Mesonotal praescutum chiefly reddish brown, lightly gray pruinose, humeral region more yellowed, pseudosutural foveae pale; scutal lobes reddish brown, scutellum more testaceous; postnotum darker brown. Pleura brown dorsally and behind, the sternopleurite and meron more yellowed. Halteres weakly darkened, especially the knobs. Legs with all coxae and trochanters pale yellow; femora and tibiae yellow, the tarsi brownish black. Wings grayish yellow, the prearcular and costal fields clearer yellow; veins brownish yellow, macrotrichia darker. Venation: R_2 lying slightly beyond the level of r-m; R_{4+5} subequal to r-m; petiole of cell M_3 approximately three times m-cu; vein 2nd A gently sinuous, ending before the level of m-cu.

Abdomen dark brown; hypopygium yellow. Male hypopygium having the basistyle with only two lobes, the usual dorsal one apparently lacking, the remaining two placed close together and evidently representing the ventral and mesal lobes, the latter a little smaller. Dististyles two, terminal, large and conspicuous; outer style flattened on more than the basal half, thence bent at a right angle into a long black spine, surface of style glabrous; inner style blackened on the slightly enlarged outer third, the apex a short point, on outer margin near base of the head with a microscopic spinule. Aedeagus unusually stout, the tip very slender. Phallosomic plate relatively broad, the apex narrowly obtuse, surface microscopically setulose.

Holotype, &, Tribhuvia Rath, Nepal, Bhainse-Kathmandu Road Mile 61.7, altitude 1925 meters, April 8, 1957 (Coher).

Molophilus (Molophilus) gurkha is readily told from all other generally similar regional species, including M. (M.) inconspicuus Brunetti, by the structure of the male hypopygium, especially the basistyle, dististyles and aedeagus.

Molophilus (Molophilus) sherpa new species

Belongs to the *gracilis* group and subgroup; size small (wing of male less than 3.5 mm.); general coloration of thorax reddish brown; wings narrow, tinged with pale brown, costal region light yellow, vein 2nd A unusually short, ending before the level of m-cu; male hypopygium with the ventral lobe of basistyle with a small blackened point, mesal lobe a larger spine; two unequal dististyles, the inner one shorter, with a long brush of setae on mesal face.

MALE. Length about 3 mm.; wing 3.3 mm.

Rostrum brown; palpi black. Antennae short, brownish yellow; flagellar

Pronotum brownish yellow above, dark brown on the sides. Mesonotum almost uniformly reddish brown, the lateral borders narrowly more yellowed; posterior sclerites of notum reddish brown, postnotum vaguely pruinose. Pleura obscure yellow, weakly infuscated dorsally and behind. Halteres with stem obscure yellow, knob slightly more darkened. Legs with the coxae and trochanters obscure yellow; remainder of legs broken. Wings narrow, tinged with pale brown, more fulvous in the Anal field, costal area light yellow; veins pale brown. Venation: R_2 lying immediately before the level of r-m; petiole of cell M_3 about two and one-half times m-cu; vein 2nd A unusually short, gently sinuous, ending distinctly before the level of m-cu.

Abdomen brown, hypopygium more yellowed. Male hypopygium with the dorsal lobe of the basistyle relatively slender, obtuse at tip, with scattered setae to the apex; ventral lobe broad, terminating in a small blackened point or spine; what seems to represent the usual mesal lobe is a single powerful blackened spine. Two dististyles, the outer one long and slender, straight on about the basal six-sevenths, the tip narrowed and curved into a spine, with a small point or tubercle on outer margin at the bend; inner style about two-thirds as long, nearly straight, terminating in a long spine, inner margin at near midlength with a dense brush of long strong black setae. Phallosomic plate broad and obtuse, its surface microscopically setuliferous.

Holotype, &, Baridamar, Nepal, August 2, 1957 (Coher).

Molophilus (Molophilus) sherpa is quite distinct from the other described Himalayan species in the diagnostic features, especially those of the male hypopygium. While generally similar to species such as M. (M.) diversilobus Alexander and M. (M.) inconspicuus Brunetti, it is quite distinct in these structures.

Molophilus (Molophilus) lepcha new species

Belongs to the gracilis group, procericornis subgroup; general coloration of thoracic dorsum dark reddish brown, pleura more blackened; antennae of male more than one-half the length of the wing; male hypopygium with the dorsal lobe of the basistyle longer than the body of the style, its apex narrowed and glabrous; two dististyles, the outer a blackened rod, the tip acute; inner style expanded on basal two-thirds, with sparse setae.

MALE. Length about 5.5 mm.; wing 5 mm.; antenna about 3 mm.

Rostrum dark brown; palpi black. Antennae of male black throughout, elongate, as shown by the measurements; flagellar segments elongate-fusiform, with very long outspreading black setae, as in the subgroup, these longer than the verticils. Head dark brown.

Thoracic dorsum chiefly dark reddish brown, the humeral region of the praescutum and the restricted pretergites obscure yellow. Pleura blackened, evidently darker than the notum. Halteres broken. Legs with the

coxae and trochanters yellowed; remainder of legs brownish yellow to light brown, the outer tarsal segments slightly darker. Wings broad, faintly tinged with brown; veins and macrotrichia darker brown. Venation: R_2 virtually in transverse alignment with r-m; petiole of cell M_3 about twice the oblique and somewhat sinuous m-cu; vein 2nd A relatively short, ending opposite the posterior end of m-cu.

Abdomen, including the hypopygium, dark brown. Male hypopygium with the dorsal lobe of the basistyle longer than the body of style, the narrowed glabrous apex slightly curved; ventral lobe basal in position, small, with retrorse setae at apex; mesal lobe apical, very slender, with long setae. Two dististyles, the outer a simple glabrous blackened rod, narrowed very gradually to the acute tip, inner style a trifle shorter, with nearly the basal two-thirds more expanded, provided with sparse setae; outer third narrowed and blackened, with a few setulae on outer margin immediately back from the acute tip.

Holotype, A., Nayagaon, Nepal, altitude 520 meters, March 10, 1957 (Coher).

Molophilus (Molophilus) lepcha is allied to species such as M. (M.) laxus Alexander and M. (M.) assamensis Alexander, differing from these and all other regional members of the procericornis subgroup in the structure of the male hypopygium.

(continued from page 160)

the programs for the coming meetings were completed except for one speaker.

Mr. Jacob Huberman, Treasurer, reported that there are 130 paid up members with subscriptions; 13 paid up members without subscriptions; and 196 subscribers without membership. The cash balance on hand is \$1112.44 and the capital fund amounts to \$4514.05.

The Secretary, Dr. Hodgson being absent, Dr. Ruckes was asked to substitute for him.

The Nominating Committee (Dr. James Forbes, Chm., Dr. Lucy Clausen and Edwin W. Teale) presented the following slate of Officers for the year 1957:

President, Dr. Asher Treat

Vice-president, Dr. William S. Creighton

Secretary, Dr. Edward Hodgson

Assistant Secretary, Robert Bloch

Treasurer, Jacob Huberman

Assistant Treasurer, Mrs. Patricia Vaurie

Executive Committee: E. Irving Huntington, Dr. A. B. Klots, Dr. Herbert Ruckes.

Delegate to the New York Academy of Sciences, Dr. Lucy Clausen.

There being no other nominations from the floor the nominations were

(continued on page 177)